Doğan, C. and Başol, H. Ç. (2021). Critical thinking and reading levels of preservice English teachers on the verge of a new course. *International Journal of Language Academy*, 9 (3), 83-95.

Volume 9/3 September 2021

p. 83/95

Article History:

Received

11/06/2021

Accepted

06/08/2021

Available online

19/09/2021

CRITICAL THINKING AND READING LEVELS OF PRESERVICE ENGLISH TEACHERS ON THE VERGE OF A NEW COURSE

Cemile DOĞAN¹

Hasan Çağlar BAŞOL²

Abstract

Critical thinking has been considered as one of the main goals of education at any level. The question of 'in what ways does critical thinking develop best?' still needs further exploration. Cognitive science may provide assistance in comprehending the elusive nature of critical thinking, which may lend itself to explanations by receiving theoretical background and studying skills from a wide array of perspectives. Regarding the teaching of critical thinking skills to pre-service language teachers in an EFL context, it is apparent that it requires meticulous attention from the onset of the design of the language course. Aiming to develop a critical reading and writing course which was newly added to the English Language Teaching curriculum by the Higher Education Council and putting the teaching of critical thinking skills into the core, the current study aims to explore the critical thinking and reading levels of the students at the beginning of the course and display whether any difference took place during the course of time in the academic semester specified. The inclusion of the new course entitled 'Critical Reading and Writing', required the development of the course content and a selection of materials were made according to the general framework provided by the Higher Education Council. The current study utilized descriptive and inferential means. It aimed to determine and compare the students' critical thinking and critical reading levels before and after the study. Findings indicate that students' critical thinking levels developed at the end of the study. However, it is found that female students' critical thinking scores contributed more than male students' scores. When gender is not considered as a factor, the whole group of participants improved their critical thinking skills during the study; however they did not perform the same improvement on their reading scores.

Keywords: ELT, critical thinking skills, pre-service teachers

¹ Assist Prof. Dr., Necmettin Erbakan University, Department of Foreign Language Education, cemiledogan370@gmail.com, <http://orcid.org/0000-0002-5246-6692>

² Dr., Selcuk University, Department of English Language and Literature, caglarbasol@gmail.com, <http://orcid.org/0000-0003-0251-3232>

1. INTRODUCTION

Critical thinking has been a central topic of concern since the ancient Greek philosophers, and it has been on the educational agenda through the introduction of several innovative policies in the evolutionary history of education. The 21st century has stood out among the previous improvements in that it has been the era of rapid technological growth which has had a tremendous effect on education and allowed the stakeholders the ease of reaching countless sources. Moreover, language teaching and learning gained the opportunity to exchange information with scholars from all around the world (Darling-Hammond, 2006; Day, 1999; Foord, 2009; Fullan, 2009; Harmer, 2001; Kumaravadivelu, 2001; Liu & Fisher, 2006; Piedrahita, 2018). The concept of critical thinking underpins a variety of educational practices under the category of cognitive sciences as it is composed of interdisciplinary science of thinking (Bruer, 1993; Douglas, 2000; Halpern, 1999; Haskell, 2001; Kuhn, 1999; Stapleton, 2002). At the beginning of the millennium, critical thinking skills were placed under the 21st century's required skills. The European Commission acknowledged that the citizens in the Union should be provided with the opportunity to acquire those essential skills; namely, construction of knowledge, adaptability, organization and retrieval of information, its management, critical thinking, and teamwork (Akker, 2003; Anderson, 2008; Black, 2005; OECD, 2004; Seferoglu & Akbıyık, 2006). Although there is no agreed-upon clear cut definition of the concept of critical thinking (Ennis, 2011; Epstein, 1999; Evancho, 2000; Facione, 2015; Scriven & Paul, 2008; Vaughn, 2005) and the most effective ways to teach it, it is generally included in cognitive skills to maximize purposeful learning tasks necessary to formulate inferences and evaluate the outcomes of the thinking processes.

2. LITERATURE REVIEW

Critical thinking embodies a composite of skills, such as analyzing and evaluating data, making inferences, explaining, and self-regulating. 'Inquisitiveness, systematicity, analyticity, open-mindedness, self-confidence, truth-seeking, and maturity are the affective domain components relating to critical thinking disposition' (Facione, Facione, & Sánchez, 1994 as cited in Pei et al., 2017, p. 31). Critical thinking acts as a prerequisite for any job; therefore, it is a key to be successful in life (Alagözlü, 2007; Kabeel & Eisa, 2016; Rincker, 2014). The 21st century necessitated a deliberate focus on critical thinking skills to adapt to rapid changes in professions as a result of the developments in technology. Therefore, it has been a significant topic of concern in education regardless of disciplines. Many scholars attempted to define critical thinking from the perspective of their field of study. They put forward several definitions which may lead to a more real comprehension of critical thinking as a concept. Some defined it as a form of analytical thinking through reflection (Dewey, 1933; Bloom et al., 1956; Lipman, 1988; Ennis, 1993; Kivunja, 2014), while others considered it as a purposeful cognitive activity leading to self-regulation (Facione, 2015; Halpern, 2003; Kennedy et al., 1991; Paul & Elder, 2014). Halpern (2014) uses critical thinking interchangeably with reflective thinking, decision making, problem-solving and creative thinking. The rationale behind listing critical thinking skills is to outline the behaviors and practices to make critical thinking a teachable concept and concretize the characteristics of an ideal critical thinker (Ennis, 2011; Facione, 1990; Lai, 2011). Bloom (1956) narrowed down critical thinking and established the most commonly used taxonomy as a framework for the educators to plan a curriculum putting critical thinking into the core. The taxonomy involves six hierarchical categories, namely, knowledge, comprehension, application, analysis, synthesis, and evaluation. Another attempt was listing eight critical thinking skills: (1) asking questions, (2) defining a problem, (3) examining evidence, (4) analyzing assumptions and biases, (5) avoiding

emotional reasoning, (6) avoiding oversimplification, (7) considering interpretations, and (8) tolerating ambiguity (Malmir & Shoorcheh, 2012, p. 609). A thorough examination of the skills that make up critical thinking has been essential before making any instructional decisions.

2. 1. Critical Thinking and Language Teaching

The post method era brought about changes in learner and teacher roles that moved towards self-regulated learning, which is attached to metacognitive awareness and self-directedness. However, teachers still have to follow a fixed theory-driven curriculum. English teachers, especially in the EFL context, have been in a struggle for incorporating the most effective implementations into their instruction as they are challenged by the demands of the 21st century (Kay & Greenhill, 2011). By its nature, language teaching lends itself to the integration of skills but especially after the introduction of The Common European Framework of Reference for Languages (CEFR) as an international standard for describing language abilities, teaching through integrated skills gained more significance. The teaching of four primary skills and their sub-skills aims to develop students' communicative competence since they are the prerequisites to social, educational, and professional opportunities (Hinkel, 2010; Kumaravadivelu, 2006; Maftoon & Sarem, 2012; Pardede, 2019). Therefore, the promotion of critical thinking became more crucial to function appropriately in the globalized new world. The critical thinking tasks added to the classroom instruction aim to improve English proficiency and critical thinking (Beaumont, 2010; Halvorsen, 2005; Leach, 2011; Marin & Pava, 2017; Nunan, 1989; Van den Branden, 2006). This aim requires thinking beyond solely linguistic forms and inserting autonomy, creativity, decision making, self-reflection, and evaluation into instructional decisions, especially in teacher education programs. Concerning teaching English, teachers are not unfamiliar with the idea of integration of skills and tailoring their instructional tasks to be as authentic and lifelike as they can be. Thus, equipping language teachers with critical thinking skills bears utmost importance in teacher education.

Regarding teachers' lack of critical thinking skills, several reasons have been put forward. One ample reason is their exposure to traditional teaching methods (Akatsuka, 2020; Atkinson, 1997; Enciso et al. 2017; McPeck, 1990) and mere transmission of specific skills which outweighed teaching higher-order thinking skills in several domains depending on the cultural contexts (Stapleton, 2001; Tahorudin, 2017). Several studies stated a limited outlook in promoting critical thinking in the Asian context (Ho et al., 2018; Lin, 2018; Stapleton, 2001). In the context of the study, similarly, underwhelming connotations are made regarding the decline in the critical thinking skills of Turkish students (OECD, 2016). However, it is one of the explicitly referred skills in the National English Language Curriculum by the Ministry of Education (MoNE) (MEB, 2013). According to the results of several studies, it was observed that Turkish EFL learners had difficulty in expressing themselves through critical thinking tasks (Alagözlü, 2007; Doğan & Tosun, 2019; Doğanay & Ünal, 2006; Genç, 2017; Ördem, 2018; Tarakçıoğlu, 2008).

On the other hand, critical thinking can be taught, and a considerable amount of research reveals that students' critical thinking can be fostered through focusing on language proficiency in general (Afshar, Rahimi & Rahimi, 2014; Davidson & Dunham, 1997; Halvorsen, 2005; Hashemi & Zabihi, 2012; Lebowitz, 2015; Liaw, 2007), and L2 writing (Assadi, Davatgar & Jafari, 2013; Brown & Keeley, 2007; Elbow, 1981; Pei et al., 2007; Trang & Anh, 2020; Weigle, 2002). With the intention of embedding critical thinking into EFL teacher education programs, a course entitled 'Critical Reading and Writing' was introduced in the academic year of 2018-2019 by Higher Education Council (HEC). In the

course description provided by HEC, it was aimed to analyze contemporary studies concerning English language education within their context, compare and contrast articles on the same topic from distinct perspectives and make synthesis to produce original texts. This proves to be a valuable enterprise for transmission of critical thinking to future generations (Atkinson, 1997; Davidson & Dunham, 1997; Kivunja, 2014; Stupple et al., 2017) because what they need for developing critical thinking is growing, because what they need for developing critical thinking is growing, especially in higher education programs for teachers to be able to use in their future teaching contexts.

From this point of view, the newly introduced course in the context of the study provided the rationale behind the current study to investigate the current level of critical thinking and reading skills. Afterward, it was set out to create the course content, which targeted develop students' critical reading and writing skills by the inclusion of tasks that provoke higher-order thinking skills. It was a semester-long compact course; therefore, it required extra caution, especially during the selection of weekly tasks. As reading and writing skills were outlined as the focus of the course by the HEC, it centered around reading and writing without disregarding listening, speaking, and sub-skills rather than integrating them into the design to develop pre-service language teachers' critical thinking skills. After a four-month intervention, the same scales were administered for the second time at the end of the semester. The current study aimed to contribute to the literature through investigation of critical thinking levels of pre-service English language teachers and their critical reading tendencies by utilizing the procedures of descriptive and inferential statistics. The data were collected through California Critical Thinking Disposition Inventory (CCTDI) and Critical Reading Scale. Therefore, the study steered around the following research questions:

1. What is the profile of students regarding their critical thinking levels and their critical reading levels?
2. Is there a difference between students' critical thinking levels regarding their gender?
3. Is there a difference between students' critical reading levels regarding their gender?
4. Is there a difference between students' critical thinking and reading levels before and after the study?

3. METHODOLOGY

3.1. Research Context and Participants

The participants were second-year students of the English Language Teaching department at a state university in Turkey. They all took the standardized national university entrance exam to be eligible and validated to attend the ELT program; therefore, all the participants were regarded to be almost at the same proficiency level.

They previously took introductory courses such as Reading Skills, Writing Skills, Spoken English, Listening and Pronunciation, Educational Psychology and Philosophy, Computer Sciences, and Elective Courses during their freshman year. The course was endorsed with a compiled coursebook and additional supplementary materials involving audio-visual components. The course was designed to provide space for different interaction patterns during the 14- week program.

90 EFL pre-service teachers (65 females and 25 males) aging between 17-34 taking the newly introduced 'Critical Reading and Writing Course' for the first time participated in the

study. The distribution of participants regarding their age and gender is given in Table 1 below.

Table 1. *Participant Profile*

Age	17-22		23-28		29-34	
	n	%	n	%	n	%
Gender						
Female	62	95.4	1	1.5	2	3.1
Male	24	96	0	0	1	4
Total	86	95.6	1	1.1	3	3.3

As could be observed from Table 1, the majority of the participants (95.6 %) are between 17-22 years of age. There is only 1 participant between 23-28, and there are 3 participants between 29-34.

3.2. Data Collection and Analysis

As the study adopted a quantitative design, both descriptive and inferential statistics were used. The data collection was executed utilizing quantitative methods through questionnaires before and after the study. The data collection instruments consisted of the CCTDI, a survey instrument (51 questions, six subscales) adapted and translated by Kökdemir (2003) to reveal learners' tendency towards critical thinking dispositions. The survey was implemented in Turkish to make the items more comprehensible to the students. The subscales of the survey were about truth-seeking, open-mindedness, analyticity, systematicity, critical thinking, self-confidence, and inquisitiveness. The scale has good internal consistency with a Cronbach alpha coefficient of .89.

Another data collection tool was the Critical Reading Scale which was a 33-item Likert-type scale. The participants answered the questions as 1. Strongly Disagree 2. Disagree 3. Not Decided 4. Agree 5. Strongly Agree in terms of their stance towards the case investigated. The scale has good internal consistency with a Cronbach alpha coefficient of .92. The statistics were measured using the Statistical Package for Social Sciences (SPSS) 22.0.

4. RESULTS

First, the researchers analyzed the participants' critical thinking and reading levels before the study to reveal their profile. Then, they carried out the same analysis after the study to see whether the quasi-experimental intervention helped them improve their critical thinking and reading skills. To achieve this, independent samples t-tests were conducted before and after the implementation. Table 2 below presents the results before the implementation, and Table 3 shows the results after the implementation.

Table 2. *Critical Thinking and Critical Reading Levels Before the Implementation*

Scale	Males		Females		t(88)	p	eta squared
	M	SD	M	SD			
Critical Thinking	99.28	12.01	96.66	10.90	.992	.324	.01
Critical Reading	129.08	12.97	131.57	12.37	-.84	.401	.008

As could be observed in Table 2, an independent samples t-test was conducted to compare the critical thinking levels of males and females. There was no significant difference in scores for males (M=99.28, SD=12.01) and females (M= 96.66, SD=10.90; $t(88) = .992$, $p = .324$, two-tailed). The magnitude of the difference in the means (Mean Difference= 2.62, 95% CI:-2.63 to 7.86) was small (eta squared = .01).

Similarly, an independent samples t-test was conducted to compare the critical reading levels of males and females. There was no significant difference in scores for males (M=129.08, SD=12.97) and females (M=131.57, SD=12.37; $t(88) = -.84$, $p = .401$, two-tailed). The magnitude of the difference in the means (Mean Difference= -2.49, 95% CI:-8.35 to 3.37) was very small (eta squared = .008). Based on those results, it might be claimed that the current level of critical thinking and reading abilities of the participants were very similar to each other.

Table 3. *Critical Thinking and Critical Reading Levels After the Implementation*

Scale	Males		Females		t(88)	p	eta squared
	M	SD	M	SD			
Critical Thinking	99.36	9.97	101.29	9.60	-.846	.40	.008
Critical Reading	126.28	17.33	132.52	12.70	-2.18	.032*	.05

* $p < .05$

As could be seen in Table 3 above, an independent samples t-test was administered to compare the critical thinking levels of males and females after the implementation. There was no significant difference in scores for males (M=99.36, SD= 9.97) and females (M= 101.29, SD= 9.60; $t(88) = -.846$, $p = .40$, two-tailed). The magnitude of the difference in the means (Mean Difference= -1.93, 95% CI:-6.47 to 2.61) was very small (eta squared = .008). The results might indicate that females improved their critical thinking skills, however when compared to males no significant difference was observed.

Similarly, an independent samples t-test was also conducted to compare the critical reading levels of males and females at the end of the study. There was a significant difference observed in scores for males (M=126.28, SD=17.33) and females (M=133.52, SD=12.70; $t(88) = -2.18$, $p = .032$, two-tailed). However, the magnitude of the difference in the means (Mean Difference= -7.24, 95% CI:-13.85 to -.64) was small (eta squared = .05).

Paired samples t-tests were conducted to compare the critical thinking and critical reading levels of the participants before and after the implementation. Table 4 below presents the

results of all the participants and Table 5 presents the results according to the gender of the participants.

Table 4. *Critical Thinking and Critical Reading Levels Before and After the Implementation*

Scale	Time 1		Time 2		t(89)	p	eta squared
	M	SD	M	SD			
Critical Thinking	97.39	11.22	100.76	9.67	-2.20	.031*	.05
Critical Reading	130.88	12.52	131.51	14.41	-.323	.75	.001

*p<.05

As could be observed in Table 4, a paired-samples t-test was carried out evaluate the impact of the intervention on participants' scores on the Critical Thinking Skills. The statistical increase was significant in Critical Thinking scores from Time 1 (M = 97.39, SD = 11.22) to Time 2 (M = 100.76, SD = 9.67), $t(89) = -2.20$, $p = .031$ (two-tailed). The mean increase in the scores was 3.37 with a 95% confidence interval ranging from -6.41 to -0.31. The eta squared statistic (.05) indicated a small effect size. In terms of critical reading, there was no statistically significant increase in Critical Reading scores from Time 1 (M = 130.88, SD = 12.52) to Time 2 (M = 131.51, SD = 14.41), $t(89) = -.323$, $p = .75$ (two-tailed). The mean increase in the scores was .63 with a 95% confidence interval ranging from -4.53 to 3.26. The eta squared statistic (.001) indicated a very small effect size.

The results suggest that, when gender is not considered as a factor, the whole group of participants improved their critical thinking skills through the study; however they did not perform the same improvement on their reading scores.

Table 5. *Critical Thinking and Critical Reading Levels Before and After the Implementation According to the Gender of the Participants*

Scale	Time 1		Time 2		t(24)	p	eta squared
	M	SD	M	SD			
Males							
Critical Thinking	99.28	12.01	99.36	9.97	-.23	.98	.02
Critical Reading	129.08	12.97	126.28	17.33	.687	.50	.02
Scale	Time 1		Time 2		t(64)	p	eta squared
	M	SD	M	SD			
Females							
Critical Thinking	96.66	10.90	101.29	9.60	-2.785	.007*	.10
Critical Reading	131.57	12.37	133.52	12.70	-.880	.38	.01

*p<.05

As can be seen in Table 5, a paired-samples t-test was conducted to evaluate the impact of the intervention on males' scores on the Critical Thinking Skills. A statistically significant increase did not take place in Critical Thinking scores from Time 1 (M = 99.28, SD = 12.01)

to Time 2 ($M = 99.36$, $SD = 9.97$), $t(24) = -.23$, $p = .98$ (two-tailed). The mean increase in the scores was .08 with a 95% confidence interval ranging from -7.11 to 6.95. The eta squared statistic (.02) indicated a small effect size.

A paired-samples t-test was also conducted to evaluate the impact of the intervention on males' scores on the Critical Reading Skills. There was no statistically significant increase in Critical Reading scores from Time 1 ($M = 129.08$, $SD = 12.97$) to Time 2 ($M = 126.28$, $SD = 17.33$), $t(24) = .687$, $p = .50$ (two-tailed). The mean decrease in the scores was 2.80 with a 95% confidence interval ranging from -6.61 to 11.21. The eta squared statistic (.02) indicated a small effect size.

As for the females' scores on the Critical Thinking Skills, there was a statistically significant increase in Critical Thinking scores from Time 1 ($M = 96.66$, $SD = 10.90$) to Time 2 ($M = 101.29$, $SD = 9.60$), $t(64) = -2.785$, $p = .007$ (two-tailed). The mean increase in the scores was .08 with a 95% confidence interval ranging from -7.11 to 6.95. The eta squared statistic (.10) indicated a moderate effect size.

A paired-samples t-test was also conducted to evaluate the impact of the intervention on females' scores on the Critical Reading Skills. There was no statistically significant increase in Critical Reading scores from Time 1 ($M = 131.57$, $SD = 12.37$) to Time 2 ($M = 133.52$, $SD = 12.70$), $t(64) = -.880$, $p = .38$ (two-tailed). The mean increase in the scores was 1.95 with a 95% confidence interval ranging from -6.39 to 2.28. The eta squared statistic (.01) indicated a small effect size.

5. DISCUSSION & CONCLUSION

This section discusses the findings of the current study based on the research questions. There was an increase in critical thinking levels of all the participants after the implementation. This may be due to the integration of critical thinking tasks in weekly course contents rather than using traditional exploitation of reading texts for improving reading comprehension. The reading texts chosen were research articles on various disciplines, which all could lend themselves to add reading between the lines questions. Therefore, in almost all texts, along with factual information, the participants employed questioning the author's (QtA) technique (Beck & McKeown, 2006), and identified the purpose and the audience (for whom the text was written), the author's point of view (beliefs and ideas, formality/informality, objectivity/subjectivity), the author's tone (the attitude and/or state of mind), and the author's style to see how the words and expressions are put together in simple or complex discourse structures (Hudson, 2007). Aiming to foster critical thinking skills, the tasks required integrating all skills: listening, speaking, reading, and writing. In light of the quantitative data processed, the results are aligned with those of the researchers (Afshar, Rahimi & Rahimi, 2014; Assadi, Davatgar & Jafari, 2013; Brown & Keeley, 2007; Davidson & Dunham, 1997; Halvorsen, 2005; Hashemi & Zabihi, 2012; Lebowitz, 2015; Liaw, 2007; Pei et al., 2017; Petek, 2017; Trang & Anh, 2020; Weigle, 2002) who focused on increasing language proficiency through critical thinking.

Another finding of the study is that there was a significant difference between critical reading levels of male and female students after the study. The post-test results yielded that critical reading levels of female students were higher than male students. There were studies analyzing gender differences in critical thinking and reading abilities of students. Several of them reported no significant difference between genders (Barjesteh & Reza, 2012; Maltepe, 2016; Marmi et al., 2020). The current study yielded similar results with Batır et al.'s (2019) study, which focused on visual reading skills of students, Karabay et al.'s study

(2015) examining pre-service teachers' perceptions about critical reading self-efficacy, and Jie et al.'s (2015) study in which females are reported to display higher critical reading levels. This may be due to the selection of materials that would appeal female students more than male students. Another reason may be female students' accommodating themselves into non-traditional instructional tasks quicker than male students. The gender difference in critical thinking and reading levels requires further exploration. Taking the one-semester-long duration and bearing in mind that critical thinking and reading need long-term efforts, longitudinal studies are necessary to bring up teachers with critical thinking and reading skills (Atay, 2015; Paul & Elder, 2014). Therefore, incorporating critical thinking tasks explicitly or implicitly in the course design would be a valuable investment for pre-service language teachers' education. In the current study, 'Critical Reading and Writing' course was selected to foster students' critical thinking and reading abilities by embedding explicit and implicit tasks into the course design.

6. LIMITATIONS

The study has two main limitations. Firstly, data collection rests solely on Likert Scales of measurement in a context-specific environment. The study adopted a quantitative design. Regarding methodological design, a quantitative research is used to obtain data from 90 Turkish EFL students. Further research utilizing a mixed-method research design with more extensive sampling is necessary to investigate critical thinking dispositions and critical reading skills.

The second limitation is the number of participants. The research is conducted in an ELT department at a state university. More studies in different higher education environments would have implications for further quantitative studies in different courses.

REFERENCES

- Afshar, H. S., Rahimi, A., & Rahimi, M. (2014). Instrumental motivation, critical thinking, autonomy and academic achievement of Iranian EFL learners. *Issues in Educational Research*, 24(3), 281-298.
- Akatsuka, Y. (2020). Promoting critical thinking skills in an online EFL environment. *Journal of Pan-Pacific Association of Applied Linguistics*, 24(2), 95-113. <https://doi.org/10.25256/PAAL.24.2.595>
- Akker, J. van den (2006). Curriculum development re-invented. In Letschert, J. (Ed.), *Curriculum development re-invented*, pp. 16-30. Enschede: Stichting Leerplan Ontwikkeling
- Alagözlü, N. (2007). Critical thinking and voice in EFL writing. *Asian EFL Journal*, 9(3), 118-136.
- Anderson, R. (2008). Implications of the information and knowledge society for education. In Voogt, J. & Knezek, G. (Eds.), *International handbook of information technology in primary and secondary education* (pp. 5-22). Boston: Springer.
- Assadi, N., Davatgar, H., & Jafari, P. (2013). The effect of critical thinking on enhancing writing among Iranian EFL learners. *International Journal of Scientific & Engineering Research*, 4(3), 1-7.
- Atay, D. (2015). Is critical thinking teachable in tertiary education? In Refresh: The Changing Role of Freshman English. In Rodrigues, B. Köktürk, B., Aydoğan, H. S., Güçeri, M. & Önel, Z. İ. (Eds.). Sabancı University.
- Atkinson, D. (1997). A critical approach to critical thinking in TESOL. *TESOL Quarterly*, 31(1), 71-94.

- Beck, I. & McKeown, M. (2006). *Improving comprehension with questioning the author: A fresh and expanded view of a powerful approach*. Scolastic.
- Barjesteh, H. & Vaseghi, R. (2012). A reading strategy in developing English reading comprehension performance. *Journal of Foreign Language Teaching and Translation Studies*, 1(2), 21-34.
- Batır, Z., Başar, M. & Süzen, H. N. (2019). Critical visual reading skills of students. *International Journal of Education and Literacy Studies*, 7(3), 38-48. <http://dx.doi.org/10.7575/aiac.ijels.v7n.3p.38>
- Beaumont, J. (2010). A sequence of critical thinking tasks. *TESOL Journal*, 1(4), 427-448.
- Black, S. (2005). Teaching students to think critically. *Education Digest*, 70(6), 42-47.
- Bloom, B. S. (1956) *Taxonomy of educational objectives: Vol 1. Cognitive domain*. McKay.
- Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive domain*. Longman.
- Bruer, J. T. (1993). *Schools for thought: A science of learning in the classroom*. MIT Press.
- Brown, M. N. & Keeley, S. M. (2007). *Asking the right questions: A guide to critical thinking*. Pearson Prentice Hall.
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. *Journal of Teacher Education*, 57 (10), 1-15. <https://doi:10.1177/0022487105285962>.
- Davidson, B., & Dunham, R. (1997). Assessing EFL student progress in critical thinking with the Ennis-Weir critical thinking essay test. *JALT Journal*, 19, 43-57.
- Day, C. (1999). *Developing teachers: the challenges of lifelong learning*. Falmer Press.
- Dewey, J. (1933). *How we think*. Henry Regnery.
- Doğan, C. & Tosun, B. C. (2019) Critical reading in EFL courses: the facile and challenge confronted. *International Online Journal of Education and Teaching (IOJET)*, 6(3), 500-509. <http://iojet.org/index.php/IOJET/article/view/617>
- Doğanay, A., & Ünal, F. (2006). Eleştirel düşünmenin öğretimi. In Şimşek, A. (Ed.). *İçerik türlerine dayalı öğretim*. Nobel Yayın Dağıtım.
- Douglas, N.L. (2000). Enemies of critical thinking: Lessons from social psychology research. *Reading Psychology*, 21, 129-144.
- Elbow, P. (1981). *Writing with power: techniques for mastering the writing process*. OUP.
- Enciso, O. L. U., Enciso, D. S. U., & Daza, M. D. P. V. (2017). Critical thinking and its importance in education: Some reflections. *Rastros Rostros*, 19(34), 78-89.
- Ennis, R. H. (1993). Critical thinking assessment. *Theory into Practice*, 32(3), 179-186. <https://doi.org/10.1080/00405849309543594>
- Ennis, R. H. (2011). *The nature of critical thinking: An outline of critical thinking dispositions and abilities*. http://webcache.googleusercontent.com/search?q=cache:gQfldFRxyuMJ:faculty.education.illinois.edu/rhennis/documents/TheNatureofCriticalThinking_51711_000.pdf+&cd=2&hl=tr&ct=clnk&gl=tr
- Epstein, R. L. (1999). *Critical Thinking*. Wadsworth Publishing Company.
- Evancho, R. S. (2000). *Critical thinking skills and dispositions of the undergraduate baccalaureate nursing student*. Southern Connecticut State University, Unpublished master's thesis.
- Facione, P. A. (1990). *Critical thinking: a statement of expert consensus for purposes of educational assessment and instruction*. Retrieved from https://assessment.trinity.duke.edu/documents/Delphi_Report.pdf
- Facione, P. A. (2015). Critical thinking: what it is and why it counts. Retrieved from https://www.academia.edu/11052756/_Critical_Thinking_What_It_Is_and_Why_It_Counts_2015_-_English
- Foord, D. (2009). *Delta teacher development, developing teacher: practical activities for professional development*. DTDS.

- Fullan, M. (2009). Large-scale reform comes of age. *Journal of Educational Change*, 10, 101-113. [https:// doi: 10.1007/s10833-009-9108-z](https://doi.org/10.1007/s10833-009-9108-z)
- Genç, G. (2017). The relationship between academic achievement, reading habits and critical thinking dispositions of Turkish tertiary level EFL learners. *Educational Research Quarterly*, 41(2), 43-73.
- Halpern, D. F. (1999). Teaching for critical thinking: Helping college students develop the skills and dispositions of a critical thinker. *New Directions for Teaching and Learning*, 80, 69-74.
- Halpern, D. (2003). *Thought and knowledge: an introduction to critical thinking* (4th ed.). Lawrence Erlbaum.
- Halpern, D. F. (2014). *Thought and knowledge: an introduction to critical thinking* (5th ed.). Psychology Press.
- Halvorsen, A. (2005). Incorporating critical thinking skills development into EFL/EFL courses. *The Internet TESL Journal*, 11(3), 1-2.
- Harmer, J. (2001). *The practice of English language teaching* (3rd ed.). Longman.
- Hashemi, M. R., & Zabihi, R. (2012). Does critical thinking enhance EFL learners' receptive skills? *Journal of Language Teaching & Research*, 3(1), 172-179.
- Haskell, R. (2001). *Transfer of learning: Cognition, instruction and reasoning*. Academic Press.
- Hinkel, E. (2010). *Integrating the four skills: Current and historical perspectives*. DOI: 10.1093/oxfordhb/9780195384253.013.0008
- Ho, T. N., Nguyen, T. L., Nguyen, T. T., Ngo, V. T. H., & Nguyen, T. T. (2018). The development of critical thinking for students in Vietnamese schools: From policies to practices. *American Journal of Educational Research*, 6(5), 431-435. <https://doi.org/10.12691/education-6-5-10>.
- Hudson, T. (2007). *Teaching second language reading*. Oxford University Press.
- Jie, Z., Yuhang, J. & Yuan, Y. (2015). The investigation on critical thinking ability in EFL reading class. *English Language Teaching*, 8(1), 83-94.
- Kabeel, A. R., & Eisa, S. A. E. M. M. (2016). The correlation of critical thinking disposition and approaches to learning among baccalaureate nursing students. *Journal of Education and Practice*, 7(32), 91-103.
- Karabay, A., Kayıran, B.K., & Işık, D. (2015). The investigation of pre-service teachers' perceptions about critical reading self-efficacy. *Eurasian Journal of Educational Research*, 59(227), 227-246. <http://dx.doi.org/10.146.689/ejer.2015.59.12>
- Kay, K. & Greenhill, V. (2011). Twentyfirst Century Students Need 21st Century Skills. In G. Wan & D.M. Gut, (Eds.), *Bringing Schools into the 21st Century* (pp. 41-65). Springer.
- Kennedy, M., Fisher, M. B., & Ennis, R. H. (1991). *Critical thinking: Literature review and needed research*. In L. Idol & B. F. Jones (Eds.)
- Kivunja, C. (2014). Do you want your students to be job-ready with 21st century skills? Change pedagogies: A pedagogical paradigm shift from Vygotskyian social constructivism to critical thinking, problem solving, and Siemens' digital connectivism. *International Journal of Higher Education*, 3(3), 81-91. <https://doi.org/10.5430/ijhe.v3n3p81>
- Kuhn, D. (1999). A developmental model of critical thinking. *Educational Researcher*, 28(2), 16-26.
- Kumaravadelu, B. (2001). Toward a postmethod pedagogy, *TESOL Quarterly*, 35 (4), 537-560. [https://doi: 10.2307/3588427](https://doi.org/10.2307/3588427)
- Kumaravadelu, B. (2006). *Understanding language teaching: From method to postmethod*. Lawrence Erlbaum Associates

- Lai, E. R. (2011). *Critical thinking: A literature review*. Pearson's Research Reports, 6, 40-41.
- Leach, B. T. (2011). Critical thinking skills as related to university students' gender and academic discipline (Unpublished doctoral dissertation). East Tennessee State University, USA.
- Lebowitz, S. (2015). 9 ways to skip the shallow small talk and have deep conversations. Web. Retrieved from <http://www.businessinsider.com/how-to-skip-small-talk-and-have-deep-conversations-2015-2-2>
- Liaw, M. L. (2007). Content-based reading and writing for critical thinking skills in an EFL context. *English Teaching & Learning*, 31(2), 45-87.
- Lin, Y. (2018). *Developing critical thinking in EFL classes: An infusion approach*. Springer.
- Liu, F. & Fisher, L. (2006) The development patterns of modern foreign language student teachers' conceptions of self and their explanations about change: three cases, *Teacher Development*, 10(3), 343-360. <http://dx.doi.org/10.1080/13664530600922203>
- Lipman, M. (1988). Critical thinking: What can it be? *Educational Leadership*, 46(1), 38-43.
- Maftoon, P., Hamidi, H., & Sarem, S. N. (2012). The effects of CALL on vocabulary learning: A case of Iranian intermediate EFL learners. *Broad Research in Artificial Intelligence and Neuroscience*, 3(4), 19-30.
- Malmir, A., & Shoorcheh, S. (2012). An investigation of the impact of teaching critical thinking on the Iranian EFL learners' speaking skill. *Journal of Language Teaching and Research*, 3(4), 608-617. <https://doi.org/10.4304/jltr.3.4.608-617>.
- Maltepe, S. (2016). An analysis of the critical reading levels of pre-service Turkish and Literature Teachers. *Eurasian Journal of Educational Research*, 63, 169-184. <http://dx.doi.org/10.14689/ejer.2016.63.10>
- Marin, M. A. & Pava, L. (2017). Conceptions of critical thinking from university EFL teachers. *English Language Teaching*, 10(7), 78-88. <https://doi.org/10.5539/elt.v10n7p78>.
- Marmi, S., Aliman, M. Suyano, Roekhan, & Harsiati, T. (2020). Students' critical thinking skills based on gender and knowledge group. *Journal of Turkish Science Education*, 17(4), 544-560.
- McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, 19(4), 10-12.
- MoNE. (2013). English language curriculum for primary education (Grades from 2 to 8). Ankara.
- Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge University Press.
- OECD. (2016). PISA 2015 Results (Volume I): Excellence and Equity in Education. PISA, OECD Publishing, Paris. <https://doi.org/10.1787/9789264266490-en>
- OECD. (2004). Lifelong learning. Observer. February, 1-8. Retrieved 30 June, 2005 from <http://www.oecd.org/dataoecd/17/11/29478789.pdf>
- Ördem, E. (2017). Developing critical-thinking dispositions in a listening/speaking class. *English Language Teaching*, 10(1), 50-55.
- Pardede, P. (2019). Pre-service EFL teachers' perception of blended learning. *Journal of English Teaching*, 5 (1), 1-14.
- Paul, R., & Elder, L. (2014). *The miniature guide to Critical thinking: Concepts and tools* (7th ed.). Foundation for Critical Thinking, CA.
- Pei, Z., Zheng, C., Zhang, M. & Liu, F. (2017). Critical thinking and argumentative writing: inspecting the association among EFL learners in China. *English Language Teaching*, 10(10), 31-42.

- Petek, E. (2018). Critical Thinking as a Nourishing Interface to EFL Context in Higher Education. *International Education Studies*, 11(5), 1-13.
- Piedrahita, S. A. M. (2018). Changing teaching practices: The impact of a professional development program on an English language teacher. *Ikala, Revista de Lenguaje y Cultura*, 23(1), 101-120. <https://doi.org/10.17533/udea.ikala.v23n01a08>
- Rincker, L. (2014). Critical thinking dispositions of students receiving livestock evaluation training (Doctoral dissertation). California State University, Chico.
- Scriven, M. & Paul, R. (2008) Defining critical thinking, Foundation for Critical Thinking. Retrieved from: <http://www.criticalthinking.org/aboutCT/definingCT.cfm>
- Seferoglu, S. S. & Akbyik, C. (2006). Teaching Critical Thinking. *H.U. Journal of Education*, 30, 193-200.
- Stapleton, P. (2001). Assessing critical thinking in the writing of Japanese university students. *Written Communication*, 18(4), 506-548. <http://dx.doi.10.1177/0741088301018004004>
- Stapleton, P. (2002). Critical thinking in Japanese L2 writing: Rethinking tired constructs. *ELT Journal*, 56(3), 250-257.
- Tarakçioğlu, B. E. (2008). *Turkish university EFL students' oral expression of critical thinking in classroom discussions* (Doctoral dissertation). Bilkent University, Ankara.
- Toharudin, U. (2017). Critical thinking and problem-solving skills: How are these skills needed in educational psychology? *International Journal of Science and Research (IJSR)*, 6(3), 2004-2007.
- Trang, N. H. & Anh, K. H. (2020). Impact of teaching critical thinking tasks for enhancing paragraph writing performance of EFL learners. *International Journal of Education and Practice*, 8 (4), 784-803.
- Van den Branden, K. (2006). Introduction: Task-based language teaching in a nutshell. In K. Van den Branden (Ed.), *Task-based language education: From theory to practice* (pp. 1-16). Cambridge University Press.
- Vaughn, L. (2005). *The power of critical thinking: Effective reasoning about ordinary and extraordinary claims*. Oxford University Press
- Wade, C. (1995). Using writing to develop and assess critical thinking. *Teaching of Psychology*, 22(1), 24-28. https://doi.org/10.1207/s15328023top2201_8
- Weigle, S. C. (2002). *Assessing writing* (1st ed.). Cambridge University Press.